

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY  
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT (TRD)**

Permitting and Compliance Division  
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The Western Sugar Cooperative  
NE¼, Section 10, Township 1 South, Range 26 East,  
Yellowstone County  
3020 State Avenue  
Billings, Montana 59107

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Method 5, 6, & 9
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required	X		SO <sub>2</sub> Concentration in Stack Gas, Stack Gas Volumetric Flowrate Monitor, & Two Fuel Oil Flowmeters.
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		Semiannual and Annual
Monthly Reporting Required		X	
Quarterly Reporting Required	X		CEMS
<b>Applicable Air Quality Programs</b>			
ARM Subchapter 7 Preconstruction Permitting	X		Permit #2912-04
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	Except for 40 CFR 61, Subpart M
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR) Includes Prevention of Significant Deterioration (PSD) and/or Non-attainment Area (NAA) NSR	X		Western Sugar is a major facility as defined by NSR/PSD, however, no actions have been performed that would trigger a review.
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
Compliance Assurance Monitoring (CAM)	X		Appendix F of OP2912-04
State Implementation Plan (SIP)	X		Billings/Laurel SO <sub>2</sub> SIP

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## SECTION I. GENERAL INFORMATION

### A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the U.S. Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit, and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based primarily on information provided in the original application submitted by The Western Sugar Cooperative (Western Sugar), formerly Western Sugar Company, on June 7, 1996, and also on Stipulated agreements between the Department of Environmental Quality (Department) and Western Sugar as documented in the June 1998 Stipulation (STIP). The STIP is discussed in Appendix E of the operating permit and a copy of the STIP is available, upon request, from the Department. Additional information was also submitted by Western Sugar with respect to the minor modification/administrative amendment requests of April 5, 2002; May 17, 2002; and June 23, 2003, the significant modification request of July 30, 2003, and the renewal application submitted on May 18, 2005.

### B. Facility Location

Western Sugar's Factory is located at 3020 State Avenue, Billings, Montana. The legal description is Northeast ¼ of Section 10, Township 1 South, Range 26 East, in Yellowstone County, Montana.

### C. Facility Background Information

#### Montana Air Quality Permit Background

On May 11, 1971, Permit #**286-073071** was issued to Western Sugar Company to install a 2000-gallon per minute wet scrubbing system on the existing cyclone dryer stacks.

On July 10, 1972, Permit #**485-092672** was issued to Western Sugar Company to install a wet scrubber system on the west drum pulp dryer cyclone.

On June 29, 1976, Permit #**913** was issued to Western Sugar Company for the conversion of three Riley 100,000 pound per hour natural gas fired steam generators (Riley #2, Riley #3, and Riley #4) to coal stoker firing.

On July 26, 1978, Permit #**1227** was issued to Western Sugar Company to install Multi-cyclones on the 3 coal fired boilers (Riley #2, Riley #3, and Riley #4).

On June 9, 1996, Western Sugar Company was issued Permit #**2912-00** to construct the boiler house stack extension that will extend the stack to at least 51.8 meters above ground level. However, during a routine site visit, the Department noted an economizer on the boiler house stack that was put there by Western Sugar Company in an effort to minimize the amount of heat that was vented through the stack. The economizer influenced the characteristics of the plume emitted from the stack and was installed without notifying the Department. As a result, the stipulation agreement between the Department and Western Sugar was readjusted to account for the changed characteristics of the exit gas plume. The changed conditions of the stipulation were as follows; the boiler house stack must be raised to a minimum height of 54.9 meters instead of the original 51.8 meters. Originally, the boiler house stack was 120 feet tall and the extension would add another 60

feet that would produce a total stack height of 180 feet (54.9 meters) above ground level. As part of the 1995 proposed Billings/Laurel SO<sub>2</sub> State Implementation Plan, Western Sugar Company and the Department stipulated that Western Sugar Company shall extend the height of the boiler house stack to at least 54.9 meters to receive Good Engineering Practices (GEP). In addition to the proposed boiler house stack extension, Western Sugar Company agreed to accept lower emission limitations for SO<sub>2</sub> as follows:

1. Combined 3-hour emissions of SO<sub>2</sub> from the east dryer stack and west dryer stack shall not exceed 88.5 pounds per 3-hour period
2. Combined daily emissions of SO<sub>2</sub> from the east dryer stack and west dryer stack shall not exceed 708.0 pounds per calendar day
3. Combined annual emissions of SO<sub>2</sub> from the east dryer stack and west dryer stack shall not exceed 148,680 pounds per calendar year

Permit #2912-00 replaced Permit #286, #485, #913, and #1227.

On April 5, 2002, the Department received a de minimis notification from Western Sugar Company. The change involved replacing the wet scrubber on one of the cooling sugar granulators with a more efficient baghouse. In addition, on May 17, 2002, the Department received a request from Western Sugar Company to modify Permit #2912-00 to reflect a name change from Western Sugar Company to Western Sugar. The permit analysis was updated to reflect the change in the control equipment on one of the cooling sugar granulators and the permit was updated to reflect the name change. On August 2, 2002, Permit **#2912-01** replaced Permit #2912-00.

On June 23, 2003, the Department received a de minimis notification from Western Sugar. The change involved replacing the wet scrubber on the second cooling sugar granulator with a more efficient baghouse. The permit analysis was updated to reflect the change in the control equipment on the second cooling sugar granulator and the permit was updated to reflect the new mailing address. In addition, the permit format, language, and rule references were updated to reflect current Department permit format, language, and rule references. Permit **#2912-02** replaced Permit #2912-01.

On July 30, 2003, the Department received an application from Bison Engineering, Inc. on behalf of Western Sugar for the modification of the diffuser at Western Sugar's facility. The modification was for the replacement of the existing slope diffuser with a more efficient tower diffuser. Although the diffuser is not an emitting unit, the diffuser has the potential to affect the downstream emitting units (pressed pulp dryers and pelletizer cooler). Therefore, Western Sugar requested federally enforceable throughput limits on the pressed pulp dryers and the pelletizer cooler that would limit potential emissions levels below Prevention of Significant Deterioration (PSD) significance levels. Permit **#2912-03** replaced Permit #2912-02.

On April 14, 2004, the Department received a complete application from Western Sugar requesting the addition of a federally enforceable permit condition to Permit #2912-03 requiring the operation of existing coal boiler pollution control equipment. The permit action was not for a physical change to the facility, but required Western Sugar to operate the scrubbers whenever the coal boilers are operated. This federally enforceable condition allowed Western Sugar to take credit for the emissions reductions associated with the scrubbers and thereby avoid the Maximum Achievable Control Technology (MACT) standards for Industrial, Commercial and Institutional Boilers, and Process Heaters (40 CFR, Part 63, Subpart DDDDD). On June 22, 2004, Permit **#2912-04** replaced Permit #2912-03.

## Title V Operating Permit Background

On June 7, 1996, the Department received an operating permit application from Western Sugar Company for their facility located in Billings, Montana. The permit application was deemed administratively complete on July 17, 1996, after the Department received additional submittals on June 17, 1996. The permit application was deemed technically complete on August 17, 1996. Permit #OP2912-00 became final and effective on November 18, 1999.

On April 5, 2002, the Department received a minor modification request from Western Sugar Company. The minor modification involved replacing the wet scrubber on one of the cooling sugar granulators with a more efficient baghouse. In addition, on May 17, 2002, the Department received a request for an administrative amendment from Western Sugar Company. The amendment involved a name change from Western Sugar Company to Western Sugar. Permit #OP2912-01 replaced Permit #OP2912-00 on September 26, 2002.

On June 23, 2003, the Department received a request for a minor modification to Permit #OP2912-01 from Western Sugar. The minor modification comprised of a de minimis change to replace the wet scrubber on the second cooling sugar granulator (EU007) with a more efficient baghouse. In addition, the mailing address for the facility was updated. Further, the condition requiring the Pulp Dryers (EU004) to comply with the Administrative Rules of Montana (ARM) 17.8.309 (Particulate Matter, Fuel Burning Equipment) was removed from the permit because the condition was applied inappropriately because the pulp drying process does not meet the definition of fuel burning equipment (ARM 17.8.101(17)) because the pulp dryers utilize direct heat transfer to dry the pulp. Permit #OP2912-02 replaced Permit #OP2912-01 on November 4, 2003.

On July 30, 2003, the Department received an application from Western Sugar for the modification of the diffuser at Western Sugar's facility. The modification was for the replacement of the existing slope diffuser with a more efficient tower diffuser. Although the diffuser was not an emitting unit, the diffuser has the potential to affect the downstream emitting units (pressed pulp dryers and pelletizer cooler). Therefore, Western Sugar requested federally enforceable throughput limits on the pressed pulp dryers and the pelletizer cooler that limited potential emissions levels below PSD significance levels. The Department also received a letter on April 1, 2004, requesting that Mr. Ken Bennett, the Billings Factory Manager, be added as an alternate responsible official. Permit #OP2912-03 replaces Permit #OP2912-02.

### **D. Current Permit Action**

On May 18, 2005, Western Sugar submitted a renewal application. The application was deemed administratively complete on May 18, 2005, and technically complete on June 18, 2005. The application requested the following changes to Permit #OP2912-03: Incorporate the Montana Air Quality Permit Requirement to install, operate, and maintain a wet scrubber on the Riley Boilers; incorporate the Compliance Assurance Monitoring (CAM) Plan (submitted as part of the application) for the particulate control provided by the scrubbers for the Riley boilers into the permit; and incorporate the CAM Plan (submitted as part of the application) for the particulate control provided for the natural gas fired pulp dryers into the permit. In addition, Western Sugar submitted an updated Hazardous Air Pollutant (HAP) emission inventory, which demonstrates that the facility is not a major source of HAPs. Permit #OP2912-04 replaces Permit #OP2912-03.

## **E. Taking and Damaging Analysis**

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications. The checklist was completed on April 21, 2005.

## **F. Compliance Designation**

The Western Sugar Facility was last inspected on October 7, 2003. The results of the inspection are summarized in the following table:

<b>Emissions Unit ID</b>	<b>Description</b>	<b>Compliance Status</b>
EU001	132 MMBtu/hr Erie City Boiler #1	In compliance
EU002	Boiler House Stack, (148 MMBtu/hr Riley Boilers; #2, #3, and #4)	In compliance
EU003	17 MMBtu/hr Clever Brooks Boiler #5	In compliance
EU004	26.6 MMBtu/hr Pulp Dryers	In compliance
EU005	Pellet Mills/ Conveyor	In compliance
EU006	Pelletizer-Cooler	In compliance
EU007	(2) Air Dryer and (2) Steam Sugar Granulators	In compliance
EU008	Lime Slaker Vent	In compliance
EU009	Burnt Lime Collector	In compliance
EU010	Truck Hauling-Fugitives	In compliance
EU017	Warehouse Sugar Dust Collector	In compliance

## SECTION II. SUMMARY OF EMISSION UNITS

### A. Facility Process Description

This facility processes sugar beets for the production of sugar. Sugar beets are received at the plant by truck at which time they are screened and washed to remove dirt and rocks. The beets are then either fed into the plant for processing or stockpiled to be processed at a later time. Overall, processing of the beets begins by slicing them into long thin strips, referred to as cossettes. The cossettes are conveyed into a diffuser where the beet sugar is removed by water and heat. The juice goes through several purifying stages and sent to the evaporators that remove the liquids and allow crystallization. The two by-products of this process are molasses and pulp, which are mixed together to create pellets to be sold as livestock feed. Shipment of the product from the facility is achieved by both rail and truck.

### B. Emission Units and Pollution Control Device Identification

The emission units regulated by Permit #OP2912-04 and the pollution control device utilized by each emission unit are summarized in the following table:

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	132 MMBtu/hr Erie City Boiler #1	Natural Gas Fuel Only
EU002	Boiler House Stack, (148 MMBtu/hr Riley Boilers; #2, #3, and #4)	Wet Scrubbers (2), Mist Eliminator (1), Multicyclones (3) – vented to common stack
EU003	17 MMBtu/hr Clever Brooks Boiler #5	Natural Gas Fuel Only
EU004	26.6 MMBtu/hr Pulp Dryers	Wet Scrubber, Mist Eliminator, Multicyclones
EU005	Pellet Mills/ Conveyor	Multicyclones
EU006	Pelletizer-Cooler	Multicyclones
EU007	(2) Air Dryer and (2) Steam Sugar Granulators	(2)Wet Scrubbers/(2)Baghouses
EU008	Lime Slaker Vent	Wet Scrubber
EU009	Burnt Lime Collector	Baghouse
EU010	Truck Hauling-Fugitives	Water Spray
EU017	Warehouse Sugar Dust Collector	Dust Collector is Control Device

### C. Categorically Insignificant Sources/Activities

ARM 17.8.1201(22)(a) defines an insignificant emissions unit as one that emits less than 5 tons per year of any regulated air pollutant, has the potential to emit less than 500 pounds per year of lead or any HAP, and is not regulated by any applicable requirement other than a generally applicable requirement. Insignificant emitting units at the Western Sugar Facility are summarized in the following table:

Emissions Unit ID	Description
IEU001	Lime Kiln
IEU002	Coal Handling
IEU003	Limestone Handling
IEU004	Coke/Coal Handling

### SECTION III. PERMIT CONDITIONS

#### A. Emission Limits and Standards

Emission limits and standards for Operating Permit #OP2912-04 were established from the limits and standards contained in Western Sugar's Montana Air Quality Permit #2912 and the STIP agreement between the Department and Western Sugar. The September 1979 Stipulation modified the sulfur in fuel rule for Western Sugar. Citing of the modified rule is not listed under each unit, but rather can be found in Section III.A - Facility Wide of the permit. Compliance demonstrations for each unit are listed in a specific section for that unit (i.e., CEMS data, fuel and beet analysis, or by burning of natural gas).

#### B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor for all emission units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for an insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

#### C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

Based on the schedule outlined in the June 12, 1998 STIP, Western Sugar must test the boiler house stack and the beet pulp dryer stack that is expected to emit the most sulfur dioxide (SO<sub>2</sub>) during the campaign annually for SO<sub>2</sub>. Based on the Departments policy, Western Sugar must test the boiler house stack and the beet pulp dryer stacks for particulate matter every two years with opacity testing being done during each campaign.

The Department may require particulate testing for the Erie City and the Clever Brooks boilers as well as for the pellet mill/conveyor, pelletizer-cooler, granulators, and the lime slaker vent.

#### D. Recordkeeping Requirements

Western Sugar is required to keep all records listed in the operating permit as a permanent business record for at least five years following the date of the generation of the record.

#### E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

#### F. Public Notice

In accordance with ARM 17.8.1232, a public notice was published in the *Billings Gazette* newspaper on or before July 14, 2005. The Department provided a 30-day public comment period on the draft operating permit from July 14, 2005, to August 15, 2005. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process. The comments and issues received by August 15, 2005, are summarized, along with the Department's responses, in the following table. The only comments received during the public comment period were from Western Sugar.

##### Summary of Public Comments

Person/Group Commenting	Comment	Department Response
	No Comments Received	

#### G. Draft Permit Comments

##### Summary of Permittee Comments

Permit Reference	Comment	Department Response
The Western Sugar Cooperative (comments received August 8, 2005)	Permit Page 1 and Technical Review Document Pages 3 and 5. The permit and TRD list that the renewal application was received on May 18, 2005. It should state 2004 since we submitted the application by letter to DEQ dated May 14, 2005.	It is standard practice for the Department to cite the date materials are received, rather than mailed, because all Department permitting timeframes are based upon the date that the materials are received. The correct date of the renewal application submittal will be identified as May 14, 2004.
	Page 1, Section 1, General Information. The description of the molasses use is incorrect and should be changed as follows: The crystallized sugar is then sized, packaged and shipped. The molasses is shipped to the Western Sugar Scottsbluff NE facility where additional sugar is extracted. Desugared molasses is then shipped back to Billings and sold as a feed supplements or added to pulp in a drying and pelletizing process and sold as animal feed.	The Department will incorporate the revised process description in the General Information Section to more accurately reflect the facilities current operations.

	<p>Permit, Page 8, Section C.5. Section C.5 says “install, operate, and maintain wet scrubber on the Riley Boilers”. It does not seem necessary to include the word install since the wet scrubbers were installed in 1976. Also, there are two scrubbers on the Riley boilers’ stack. We suggest that the section be modified to state “Western Sugar shall operate and maintain the wet scrubbers when the Riley boilers are operating”</p>	<p>The word install will be removed from Section C.5, as this portion of the permit condition has already been achieved and is not an ongoing requirement. Also, because there are two wet scrubbers, the word “scrubbers” (plural) will be used.</p>
	<p>Permit, Page 8, Section C.7. The meaning of Section C.7 is unclear and the section should be eliminated. It seems unnecessary to have a section that requires reasonable assurance of compliance when other requirements are in place for monitoring, recordkeeping and certification of compliance.</p>	<p>Condition C.7 refers to the requirements of the CAM plan, as outlined in Section C.12 and Appendix F, and will not be removed. This language in C.7 comes directly from ARM 17.8.1504. The word “of” and shall be changed to “or” and C.7 will be clarified to cite Appendix F of the Western Sugar CAM plan.</p>
	<p>Permit, Page 8, Section C.11 and page 9, Section C.15. This section on weekly preventative logs was added to the permit and is not required in the current operating permit. We question why the section was added. Weekly inspections are not part of the CAM Plan and should not be necessary or required. The Boiler stack has CEMS for SO<sub>2</sub> monitoring and scrubber flow monitoring to ensure that the scrubbers are working properly for particulate control. Regular maintenance is performed on the boilers and scrubbers and records maintained in the computerized SAP work order system. This documentation of maintenance as well as the CEMS for SO<sub>2</sub> monitoring, CAM flow monitoring to ensure the scrubbers are operating properly for particulate control, Method 9 observations for opacity, and stack testing every other year should be sufficient.</p>	<p>In Western Sugar’s current Montana Air Quality Permit #2912-04, Western Sugar requested a federally enforceable permit condition requiring the operation of the scrubbers to avoid the MACT standards for Industrial, Commercial and Institutional Boilers, and Process Heaters. Condition C.5 reflects this condition and condition C.11 is the corresponding compliance demonstration. If the computerized SAP work order system tracks this information, it may be used to fulfill this requirement.</p>
	<p>Permit, page 9, Section C.19. Section C.19 does not exist in the current operating permit. We currently provide a statement that the necessary maintenance was done and records maintained. As stated in the previous permit comment, the records are maintained in the computerized SAP work order system, not as written records. It is our understanding that Title V records can be collected and maintained in a format done as part of normal facility operations and do not have to be in a special format.</p>	<p>Condition C.19 does exist in Western Sugar’s current operating permit as condition C.12. Only condition C.19.c. and C.19.f were included to clarify existing facility requirements. Section 3(A)(1)(c) of the August 9, 1996 BER order states, “Western Sugar shall utilize appropriate maintenance, repair, and operating practices to control emissions of sulfur bearing gases from minor sources such as ducts, stacks, valves, vents, vessels, and flanges which are not otherwise subject to this stipulation and Exhibit A.” The Department has consistently applied this, “summary of repair and maintenance activities” consistently throughout the permit because it has been identified as an appropriate practice for all emitting units. Additionally, condition C.19.f. corresponds to the condition C.5 and CAM plan. Therefore, the Department will not modify these conditions.</p>

	<p>Permit, Section E Pulp Dryers. This section is similar to the section in the current permit for pulp dryers. Many of the compliance demonstration requirements reflect the SO<sub>2</sub> SIP. In 2000 we removed the fuel oil from the site and blanked off the fuel oil line to the pulp dryers. We have since cleaned the system and currently do not have the ability to use fuel oil in the pulp dryers. Sections E.4, E.5, E.9, E.10 are only necessary if fuel oil is used. We suggest that these sections be qualified to state that they are necessary only if fuel oil is used.</p> <p>Section E.11 is also a SIP requirement only if fuel oil is used although that is not reflected in Section E.11 as written.</p> <p>Section E.11 requires weekly sampling and analysis for percent sulfur of the pulp fed to the pulp dryers. In the SO<sub>2</sub> SIP the testing is required only if fuel oil is used. We requested that this section be removed from the permit. It was originally in the SIP agreement because DEQ personnel (or perhaps EPA personnel) felt that the sulfur in the sugar beets might remain in the pulp feed the pulp dryers and be emitted as SO<sub>2</sub>. However, Western Sugar analyzed the pulp on a weekly basis for two campaigns (even though we were not using oil). The sulfur content of the beets was relatively constant and minimal (0.01 to 0.04% by weight). We submitted letters to DEQ dated 4/8/99 and 5/15/00 to request that this requirement to test the pulp be removed from the SIP agreement. In addition, SO<sub>2</sub> stack testing done in October 2002 on the pulp dryers when natural gas was used as the fuel (gas is the standard fuel), showed 0.0 ppm and 0.0 lbs/hours of SO<sub>2</sub>. The test results provide further evidence that the small amount of sulfur in the beets is not emitted as SO<sub>2</sub>. It should not be necessary to test the beet pulp sulfur content again even if fuel oil were to be used in the future.</p>	<p>The Department will not remove permit conditions E.4, E.5, E.9, E.10, and E.11, except under mutual consent of the Department and EPA, as previously outlined in sections E.5 and E.9. The Department will, however, qualify (clarify) sections E.4, E.5, E.9, E.10, and E.11, as appropriate; which will retain Western Sugar's ability to use both fuel types. Additionally, the issue of testing beet pulp sulfur content can be resolved by following section 6(E)(9) of the of the August 9, 1996 BER Order, "Upon completion of two campaigns for which weekly beet pulp sulfur content data is available, Western Sugar may make a demonstration to the Department that the beet sulfur content is relatively constant and compromises a minor portion of the total sulfur input to the beet pulp dryers. If the Department determines that Western Sugar's demonstration is credible, the Department may approve of the use of a constant value for beet pulp sulfur content (a conservative value based upon the sulfur content data) and the discontinuation of weekly sampling and analysis for beet pulp sulfur content."</p>
	<p>Permit, Sections F.4, G.5, H.9, J.3 and L.3. These sections require weekly preventative maintenance inspections and written logs. We request that a qualifier be added that the inspections are only necessary when the equipment is operating. Since most equipment at the Billings factory only operates for about 5 months of the year, it should not be necessary to do the inspections weekly when the equipment is not operating.</p>	<p>The Department agrees to qualify sections F.4, G.5, H.4, J.3, and L.3. Weekly preventative maintenance inspections and written logs will be kept, "whenever the equipment is operating and during maintenance of the equipment."</p>

	<p>Permit, Section F.5, G.6, I.3 and K.3.</p> <p>Several units (pellet mill/conveyor, pelletizer cooler, lime slaker vent, and truck hauling fugitives) have revised requirements for weekly visible observations. The new requirements include the observer having been Method 9 certified within the past 2 years and a definition of excessive emissions as any visible emissions meeting or exceeding 15% opacity. These units have a 20% opacity limitation. Therefore, these new requirements appear more stringent than previously required with no justification provided and no regulatory basis. We would recommend maintaining the current permitting language for these units. At a minimum, the excessive emissions language should be modified to indicate any visible emissions meeting or exceeding 20% opacity, and that the observer should either have been Method 9 trained in the past two years or have been instructed by a Method 9 certified individual.</p>	<p>The language requiring Western Sugar to perform periodic visual surveys (weekly) to monitor compliance with the applicable opacity limit(s) is standard Department language for sources of this type. To give Western Sugar additional operational flexibility, this language allows Western Sugar to use a non-certified Method 9 observer to perform routine visual surveys. These units still have a 20% opacity limit; however, the 15% opacity is used as an indicator for the need for a complete Method 9 test (6 minute observation) or corrective action to minimize the source of emissions. The Department believes that the current draft language is appropriate and consistent with similar source permit requirements. Under ARM 17.8.1213(2), “Consistent with ARM 17.8.1212, all permits shall contain compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” The Department has deemed this visual survey language applicable to this source and will not modify the permit prior to issuance of the proposed permit, as requested.</p>
	<p>Permit, Page 22, Section K.3. In Section K.3, the end of the sentence appears to be missing (probably “Method 9 ARM 17.9.1213”).</p>	<p>This sentence was inadvertently cut off and will conclude with the citing “Method 9 ARM 17.8.1213.”</p>
	<p>Appendix F – Compliance Assurance Monitoring Plan, Pulp Dryers (EU 004).</p> <p>The operating permit requires that particulate matter stack testing on the pulp dryers be done every 2 years. This requirement was the same in the previous operating permit. The particulate stack testing on the pulp dryers was last done in October 2004 and is scheduled next for October 2006. The CAM Plan for the pulp dryers in the appendix requires that the water flow indicator range be determined during the 10/05 particulate stack test with an updated CAM Plan submitted 60 days after the test. However, we have not budgeted for or scheduled a stack test until October 2006, since the stack testing is not budgeted for or scheduled a stack test until October 2006, since the stack testing is required every other year. We request that the stack testing schedule be retained as required in the current permit for an every 2 year basis with the next test in October 2006. The range of flow would be determined during that test and an updated CAM Plan submitted to DEQ within 60 days after that test. The pulp dryer stack testing that has been done over the past 6 years has shown that the pulp dryer particulate emissions are well under the permit limits. The pulp dryer scrubbers will be operating in the same manner that they</p>	<p>The testing and corresponding submittal requirements will be updated in the CAM plan (Appendix F – Indicator Range) to read, “To be determined during 10/06 stack test with an updated CAM Plan submitted within 60 days of the stack test.” This will be reworded because the facility operations are seasonal and this permit will not be finalized until after 10/5.</p>

	<p>have been operating during the past 6 years and during the past stack testing. Although we will be adding flow monitoring, the scrubber operation will not change. We will keep records of the flow during the 2005-2006 beet processing campaign and will likely be able to establish a range prior to stack testing in October 2006 during the 2006-2007 campaign. Note that in establishing ranges for scrubbers at other Western Sugar factories, we generally found that the scrubbers require a certain minimum flow to operate properly and if enough water is used to operate them properly then they work effectively. In other words, the scrubber performance is not sensitive to actual flow once it is beyond a minimum level necessary to operate the scrubbers.</p>	
	<p>TRD, Page 8, Section C. This section states in the second paragraph that the boilers and pulp dryers must be tested annually for SO<sub>2</sub>. This is incorrect. The boilers have CEMS to measure SO<sub>2</sub> emissions continuously and a stack test RATA is done annually. However, the pulp dryers are not tested annually for SO<sub>2</sub> nor is annual testing required in the current permit or in the SIP agreement. In the case where fuel oil is used as the fuel for the pulp dryers, the SIP agreement requires operation of fuel oil flow metering and an annual stack testing for the dryer expected to emit the most SO<sub>2</sub>. Therefore, stack testing is required annually of only one dryer and only if fuel oil is used as fuel. If fuel oil is not used annual testing for SO<sub>2</sub> is not required. A stack test done in 2002, while using natural gas, showed 0.0 ppm of SO<sub>2</sub>. Also as stated previously, we removed the ability to burn fuel oil in 2000.</p>	<p>The Department has modified the TRD, page 8, section c to reflect the annual stack testing on the dryer that is expected to emit the most SO<sub>2</sub>.</p>

### Summary of EPA Comments

Permit Reference	Comment	Department Response
	No Comments Received	

#### **SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS**

Western Sugar requested a permit shield from all requirements that were identified as non-applicable in its permit renewal application. Section IV of the operating permit “Non-Applicable Requirements” contains the requirements that the Department determined were non-applicable.

## **SECTION V. FUTURE PERMIT CONSIDERATIONS**

### **A. MACT Standards**

As of the issuance date of Permit #OP2912-04, the Department is unaware of any MACT standards that are applicable to this facility, the facility is not a major source of HAPs.

### **B. NESHAP Standards**

As of the issuance date of Permit #OP2912-04, the Department is not aware of any NESHAP standards that are applicable to this facility, the facility is not a major source of HAPs.

### **C. NSPS Standards**

As of the issuance date of Permit #OP2912-04, the Department is not aware of any NSPS standards that are applicable to this facility. The steam generation boilers were all installed prior to the applicability dates for the designated NSPS standards.

### **D. Risk Management Plan**

Currently, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan. If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68.130 requirements three years after the date on which a regulated substance is first listed or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.